

ABSTRACT OF THE DISCLOSURE

A machine for cleaning containers such as flat media carriers has inside and outside arrays of nozzles arranged to spray a cleaning solution onto containers supported on a spinning rotor in a chamber. The cleaning solution, a mixture of water and a detergent or surfactant, is prepared by drawing out surfactant directly from a surfactant bulk storage vessel by means of a metering pump. The flow rate of the water is measured by a flow meter and in combination with the metering pump, a proper amount of surfactant is injected into the water line to produce a mixture with a desired surfactant concentration for removing contaminants. The mixture is injected into the water line at a mixing control valve to ensure that the water and surfactant are thoroughly mixed before being injected into the media carrier. Where the wafer carrier is provided with multiple rinse manifolds for spraying the carrier, a flow meter and mixing control valve are provided in the water inlet line for each manifold and a separate metering pump is provided for injecting surfactant into each water line to ensure that a proper amount of surfactant is injected into each water line to produce a surfactant/water mixture with a desired surfactant concentration.